Appl. No. : 09/883,851 Filed : June 18, 2001

### **REMARKS**

The following remarks are responsive to the December 23, 2003 Final Office Action. Claims 1-17 remain pending as filed and are presented for further consideration. Please reconsider the claims in view of the following remarks:

### Written Statement of Substance of Personal Examiner Interview on January 12, 2003

Applicant thanks the Examiner for the courtesy of conducting a personal interview with Applicant's representatives, Bruce S. Itchkawitz and Dr. Mu Young Lee. With regard to the present application, the Examiner and Applicant's representatives discussed Claims 1-17 and prior art references Sawa (U.S. Patent No. 5,076,993). The Examiner agreed to allow Figure 18 as an elected embodiment and Applicant's representatives identified Claims 1-17 as being readable on the embodiment of Figure 18. The Examiner and Applicant's representatives also discussed the relative positions of the material to be analyzed, the target position, and the particle detector array, as recited by the pending claims. Applicant pointed out that the Examiner's schematic on page 4 of the December 23, 2003 Final Office Action misidentifies the second distance "D<sub>2</sub>". The remarks described herein are in accordance with the discussions during the Interview.

# Response to Provisional Rejection of Claims 1-17 for Obviousness-Type Double Patenting

In the December 23, 2003 Final Office Action, the Examiner maintains the provisional rejection of Claims 1-17 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over Claims 1, 7, and 9-18 of Applicant's copending U.S. Patent Application No. 09/788,736.

Applicant respectfully traverses the rejection of Claims 1-17 for obviousness-type double patenting because Claims 1-17 of the present application are patentably distinct from Claims 1, 7, and 9-18 of U.S. Patent Application No. 09/788,736. In particular, pending Claims 1-17 each includes the limitation of a target position being a first distance from the chemical substance or material to be analyzed and the limitation of a particle detector array being "a second distance from the target position, the second distance larger than the first distance."

Applicant submits that these limitations are not obvious in view of Claims 1, 7, and 9-18 of the copending application, and respectfully requests that the Examiner withdraw the provisional rejection. However, if the Examiner maintains this provisional rejection, Applicant

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will consider submitting a Terminal Disclaimer to overcome this rejection upon indication that Claims 1-17 of the present application are otherwise allowable.

# Response to Rejection of Claims 5-12 and 14-17 Under 35 U.S.C. § 102(b)

In the December 23, 2003 Final Office Action, the Examiner maintains the rejection of Claims 5-12 and 14-17 as being anticipated by U.S. Patent No. 5,076,993 issued to Sawa et al. ("Sawa"). Applicant submits that this rejection is based on a misinterpretation of the claims, particularly the "second distance." This misinterpretation is illustrated by the Examiner's schematic on page 4 of the December 23, 2003 Final Office Action, which mislabels the distance between the chemical substance to be analyzed and the particle detector array as being the second distance "D2". As recited by Claim 5, the target position is a first distance from the chemical substance and the particle detector array is a second distance from the target position. Claim 5 further recites that the second distance is larger than the first distance (see, e.g., Figure 18 of the present application). At page 23, line 26 - page 25, line 22, the present application describes how the second distance (between the target position and the particle detector array) being larger than the first distance (between the target position and the chemical substance being analyzed) advantageously provides a magnification effect.

Applicant submits that Sawa does not disclose such a system as defined by Claim 5 of the present application. In the background section at column 2, lines 40-56, Sawa discloses a system in which 14 MeV neutrons are generated with corresponding alpha particles emitted in an opposite direction. Sawa further discloses that the neutrons are directed to an object being analyzed and that "[a] small particle detector near the tritium target detects the alpha particle" (emphasis added). Thus, Sawa discloses a relatively small second distance (between the tritium target and the particle detector). Sawa does not provide any disclosure regarding the first distance (between the target and the object being analyzed). Thus, Sawa does not disclose the relative distances as described by Claim 5 of the present application.

For the foregoing reasons, Applicant submits that Claim 5 includes limitations which are not disclosed by Sawa, so Claim 5 is not anticipated by Sawa. Applicant respectfully requests that the Examiner withdraw the rejection of Claim 5 and to pass Claim 5 to allowance.

#### Claims 6-12 and 14-17

Claims 6, 7, 10, 12, and 14 depend from Claim 5, Claims 8 and 9 depend from Claim 7, Claim 11 depends from Claim 10, Claims 15 and 16 depend from Claim 14, and Claim 17

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depends from Claim 16. Therefore, Claims 6-12 and 14-17 each includes all the limitations of Claim 5, as well as additional limitations of particular utility. Thus, Claims 6-12 and 14-17 are not anticipated by Sawa. Applicant respectfully requests that the Examiner to withdraw the rejection of Claims 6-12 and 14-17 and to pass Claims 6-12 and 14-17 to allowance.

# Response to Rejection of Claims 1-4 and 13 Under 35 U.S.C. § 103(a)

In the December 23, 2003 Final Office Action, the Examiner maintains the rejection of Claims 1-4 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Sawa in view of the "admitted prior art" identified by the Examiner in the present specification at page 8, lines 6-7 and 21+; pages 15-16, lines 12-7; and page 17, lines 1-7.

Regarding the Examiner's reference to "admitted prior art," Applicant herein incorporates by reference the remarks made in the "Amendment and Response to May 28, 2003 Office Action." In particular, Applicant asserts that while particular individual elements are known in the art, the selection, the combination, and the motivation to combine these elements as defined in the claimed invention are not taught, disclosed, or suggested by the prior art.

### Claim 1

As discussed above in relation to Claim 5, Applicant submits that Sawa does not provide any disclosure regarding the relative sizes of the "first distance" and the "second distance" as recited by Claim 1. Applicant further submits that the relative sizes of the first and second distances are not disclosed in the portions of the present application identified by the Examiner as "admitted prior art." Therefore, Applicant submits that Claim 1 is patentably distinguished over Sawa in view of the "admitted prior art" identified by the Examiner. Applicant respectfully requests the Examiner to withdraw this rejection and to pass Claim 1 to allowance.

#### Claims 2-4

Claims 2-4 depend from Claim 1, so Claims 2-4 each includes all the limitations of Claim 1, as well as additional limitations of particular utility. Thus, Claims 2-4 are patentably distinguished over Sawa in view of the "admitted prior art" identified by the Examiner. Applicant respectfully requests that the Examiner to withdraw the rejection of Claims 2-4 and to pass Claims 2-4 to allowance.

#### Claim 13

As discussed above in relation to Claim 5, neither Sawa nor the "admitted prior art" identified by the Examiner provides any disclosure regarding the relative sizes of the first and

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second distances. Claim 13 depends from Claim 5, so Claim 13 includes all the limitations of Claim 5, as well as additional limitations of particular utility. Therefore, Applicant submits that Claim 13 is patentably distinguished over Sawa in view of the "admitted prior art" identified by the Examiner. Applicant respectfully requests the Examiner to withdraw this rejection and to pass Claim 13 to allowance.

# **Summary**

In view of the foregoing remarks, Applicant respectfully submits that Claims 1-17 are in condition for allowance, and Applicant respectfully requests allowance of Claims 1-17. If there is any further impediment to the prompt allowance of this application, or if the Examiner has any questions at all regarding the present application, the Examiner is respectfully invited to call Applicant's representative, Bruce S. Itchkawitz, at 949-721-2924 or at the telephone number listed below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

Dated:  $\frac{2/12/04}{}$  By:

Bruce S. Itchkawitz

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